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THE ALLIGATOR AS A PLASTIC DECORATIVE MOTIVE IN CERTAIN COSTA RICAN POTTERY

BY C. V. HARTMAN

In Professor W. H. Holmes' work, *Ancient Art of the Province of Chiriqui*, the most interesting and instructive chapter is that devoted to the class of objects in clay which he has designated the "alligator group of ware." The alligator in this ware occurs usually as an ornament painted in red or black. The designs range from the rather realistic to the most highly conventionalized representations of the animal. A small number of these vessels are modeled to resemble in form this same reptile. The group is described "as composed chiefly of bottle-shaped vases with globular bodies and short, wide necks. Beside these vases there is a limited series of unusual forms, and a few pieces exhibit unique figures. Handles are rare, and legs are usually not of especial interest as they are plain cones or at most but rude imitations of the legs of animals. Shallow vessels are invariably mounted upon tripods, and a few of the deeper forms are so equipped. Usually the sizes are rather small, but we can occasionally observe a bottle having the capacity of a gallon or more."

Through exchange the Carnegie Museum recently obtained from Dr George Grant MacCurdy, of the Yale University Museum, a collection of alligator ware from Chiriqui, which formed a part of Professor O. C. Marsh's collection from this province. This acquisition induced me to make comparison with some new material, which I personally obtained in excavations on the highlands of Costa Rica during the year 1903, and in which the alligator as a decorative motive plays a dominant role. Nowhere else in Costa Rica has the supremacy of the alligator design over all other ornaments of a zoömorphie character come into evidence as in the ware here concerned. This ware, which belongs to an ancient culture in several respects different from the one typical of the common stone-cist burials of the highlands and the Atlantic coast, as

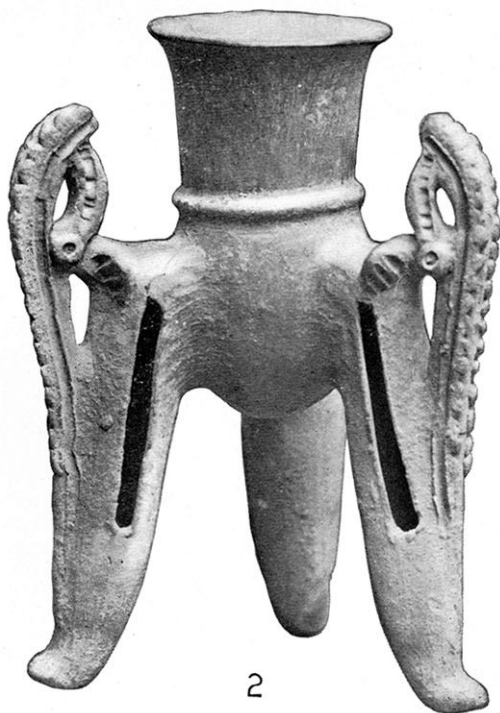
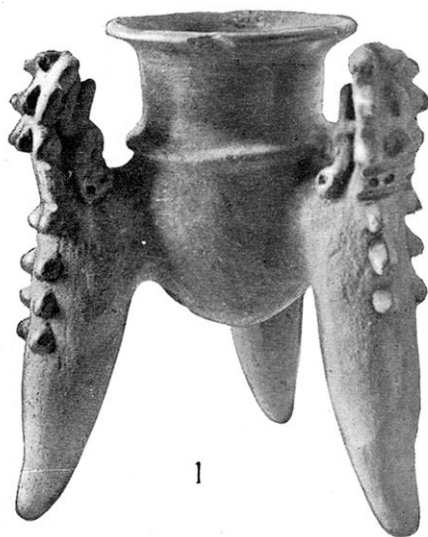
described in my *Archæological Researches in Costa Rica*, has hitherto been observed only within a limited area near San José, the capital, and in one or two localities on the Pacific coast. In these places however considerable variation in the artistic treatment of the alligator occurs.

As one of the forthcoming memoirs of the Carnegie Museum will furnish fuller information respecting these burial-grounds and their contents, I will here limit myself to a few general remarks about them and to the presentation of a brief preliminary review of the most characteristic forms of alligator ware here found.

The contrast between the Chiriquian group of alligator ware and that of Costa Rica may first be emphasized by the statement that the latter is exclusively the product of the plastic art of the potter, all the alligator designs being executed in clay, either in relief or as incised ornaments on the vessels, and are never painted; while in the Chiriquian group this class of ornaments is always painted.

Even during my first excavations in Costa Rica I discovered, in the burial-ground of Orosi, on the highlands, a few scattered fragments of clay vessels which were not only of different clay but showed ornamental features not represented in any of the vessels of the same or of other sites then examined. These are figured on plate 51, figs. 4-6; plate 62, figs. 5, 6, etc., of my *Archæological Researches in Costa Rica*. I could not at that time determine the origin of this class of ware; only after my return to Costa Rica some years later did my inquiries amongst the natives finally lead to the finding of its source. The collections which I thus secured for the Carnegie Museum were obtained almost exclusively from two small cemeteries not very far from San José. Unfortunately for the prosecution of more detailed and systematic work, the burial-ground in each place was situated in an old but still productive coffee plantation, and only narrow trenches could be dug in the open rows between the trees without endangering the roots, consequently it was impossible to prepare accurate maps of the cemeteries or to locate and record the finds in the most desirable manner. The open fields and meadows of the neighborhood were searched in vain for traces of similar burials.

No stone circles or other surface signs marked the place of these



TRIPOD ALLIGATOR VASES OF THE CURRIDABAT TYPE

burial-grounds ; only fragments of pottery exposed by the rains led to their discovery. After excavating to the depth of from two to four feet large broken tripod vases were found in extraordinarily large numbers scattered in the greatest confusion through the soil and often occurring in heaps. They had apparently been purposely broken over the burials, which were met with lower down. Over a very small area in each place thousands of these large tripod vases were found, but only three specimens, of which two are here figured (pl. XVI, figs. 1, 2), had escaped the general destruction and were preserved entire. At the depth of from four to seven feet occurred other vessels, which were of the same kind of clay and manufacture, but different in form. These were globular pots and hemispherical bowls, nearly all of which were well preserved and found in an upright position, apparently having been deposited with the dead. No trace of bone however was met with in these burials. No stone cists of any kind had served as graves, and neither by means of the color nor of the consistency of the soil could the outlines of graves be traced. The deposited objects were the only signs left of the burials. Some stone implements, consisting of celts and a few clubs, the latter plainly of Nicoyan origin, were found with the urns.

All the clay vessels of these burial-grounds are of decidedly homogeneous character, being manufactured of a peculiar coarse clay, and are distinguishable from all other highland ware by their thickness as well as by means of certain peculiar features of the ornamentation. Nearly all other ware of the Costa Rican burial-grounds appears delicate and thin compared with this class of ware, which I would designate, by way of distinction, as "*Curridabat ware*," after the name of the ancient Indian village in the vicinity of which it was first discovered. The vessels are rather limited in variety of forms, there being practically only three occurring in any great numbers, namely those mentioned above. The relief and incised ornaments are executed with great skill and taste, and will later be described. Only a few painted vessels — mostly small red bowls with painted designs in black — were found. These designs were all purely geometrical and were applied only to the inside of the vessels. These painted vessels are interesting as being the only

genuine examples I have yet seen from Costa Rica showing the method of decoration which Professor Holmes has described for the vessels of "the lost-color group."¹

By far the greater proportion of the large tripod vases of the surface layer, roughly estimated at about ninety percent, are almost devoid of ornaments. The body of the vessel consists of a semi-globular lower portion and a high cylindrical upper portion often encircled by two elevated ridges. The rim is more or less curved. The legs, which extend from the shoulder of the globular portion, are abnormally high, cylindrical to conical, hollow, and provided with a prolongation extending from the shoulder and representing a head, as is seen plainly in the realistic zoöomorphic specimens. A peculiar feature of the large vases of this locality is that in all the specimens observed each leg is provided with only one longitudinal slit, while in similar vessels from other parts of Costa Rica as a rule there always are two opposing slits, one on each side. Legs of some of the smaller vessels of Curridabat ware instead of the slits sometimes show two longitudinal rows of circular holes, a peculiarity observed also in related ware from the Pacific coast. Each leg contains from one to several rattling clay pellets. All these large tripod vessels are red in color and are hardly ever embellished with painted designs.

Of the broken tripod vessels exhumed by my men, several hundred specimens were decorated with plastic ornaments of zoöomorphic character or derivation, but only a very few bear anthropomorphic designs.

Roughly estimated, some eighty percent of these decorated vases may be classified as alligator vessels, being adorned with ornaments derived from the alligator or from parts of its body. The remainder of the decorated vases show representations of serpents, usually realistically rendered; of birds (toucans) with very large beaks; and, though very sparingly, of a few other animal and even of human forms. Conspicuous by their absence in the Curridabat ware, hitherto observed by me, are several animals which play an

¹ The negative form of painting illustrated in plate 45, fig. 1, of *Archæological Researches in Costa Rica* was produced, as later observation has shown, in a manner different from that of the Chiriquian "lost-color group."



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BROKEN TRIPODS, CURRIDABAT WARE, WITH GEOMETRICAL DESIGNS MADE UP OF ALLIGATOR SCUTES

important role in the ornamentation of the clay vessels found in the stone-cist burials, as the jaguar, the antbear (?), the armadillo, and the frog. By reason of the ever characteristic renderings of the alligator in this ware and of the fact that it exhibits so few other animal types, the task of distinguishing and recording the various modifications of the alligator ornaments becomes comparatively simple. In the pottery of the stone-cist burials, on the other hand, in which the number of animal types is considerable and in which they often intermingle and merge one into another, it is usually difficult to trace with certainty all of the many variants or transformations of any special animal form.

It is the abnormally large legs of the tripod vases of the surface layer that furnish by far the most important and instructive material for a study of the alligator motives. These legs are either made to embody alligators, which is the usual way, or they are adorned with more or less realistic relief representations of the animal.

Plate XVI, fig. 1, 2, illustrate typical specimens of the alligator vases of Curridabat. In figure 1 the animal's long, tapering body, serving as the leg of the vessel, is plain, with the exception of a portion of the back and the head, which are conspicuously adorned with rows of scutes or spikes. The animal's head extends upward from the shoulder of the vessel, and shows the long mouth with its rows of teeth represented by small circular indentations. The eyes are formed by circular pellets each with a round depression in the center. Only the front legs of the animal are represented. In figure 2 the slightly curved upper main portion of the alligator's body is separated from the leg of the vase, only the ridge-like tail being united with the latter. The back is decorated with two parallel rows of scutes, consisting of small pellets placed edgewise.

Plate XVIII illustrates a number of typical legs of the alligator vases of this class of ware, and plate XIX shows a few specimens of similar legs of tripod vases from the Pacific coast, which display somewhat different characters in their ornamentation.

As frequently observed in zoöomorphic ornaments, it is as a rule some one of the less important features — some rudimentary but characteristic organ — that is best preserved in all the more or less

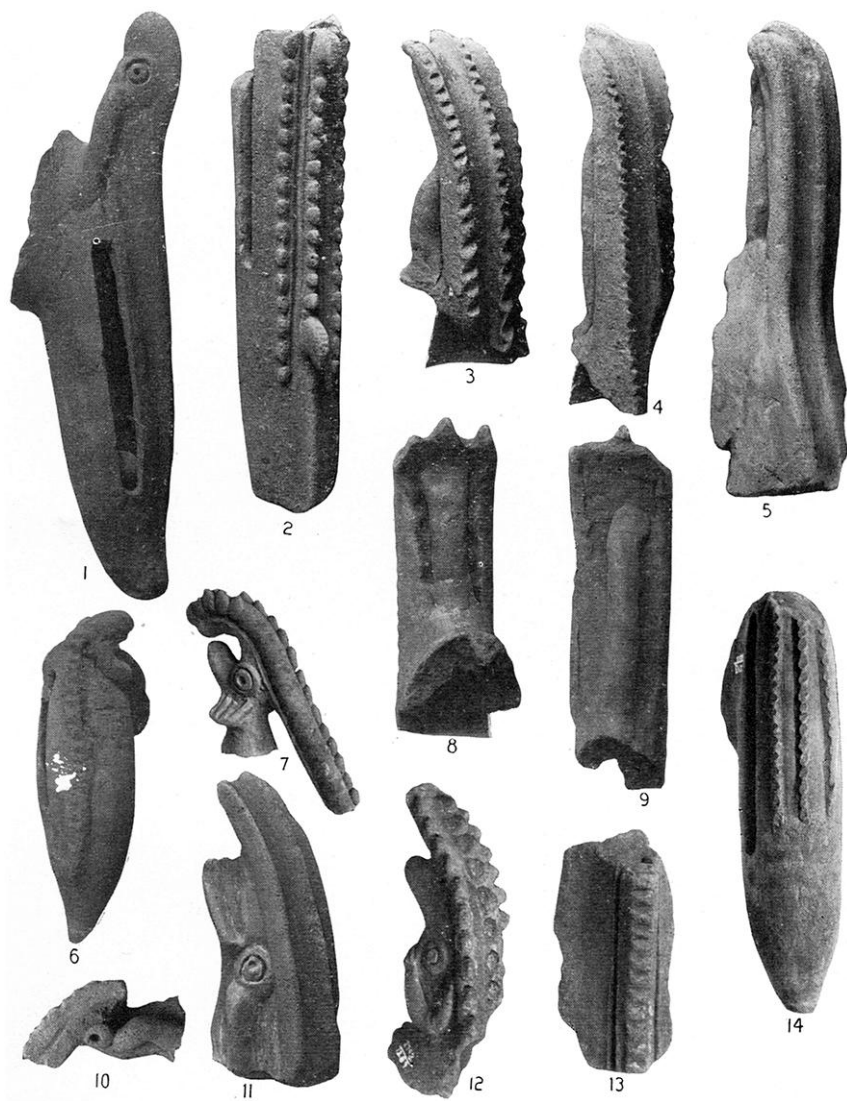
conventionalized renderings of the animal and which thus serves as a clue for tracing the original type.

The feature of the alligator ware of Curridabat that the modeler has emphasized above all others — the one which survives with the greatest persistency, as is plainly illustrated by the collection made — is the scute or scale ornamentation of the alligator's back. This character as a rule is represented by three, sometimes by two, parallel rows of pellets, and finally by a single row. These rows consist of a number of detached small pellets or spikes of various forms, or of punctuated strings, or simply by serrated, incised, or even plain ridges.

In the painted conventionalized renderings of the alligator in the Chiriqui ware the prominence of the scute ornamentation of the back is just as pronounced as in the ware here described; but another feature just as characteristic of the Chiriqui alligator in art — the upturned snout — is entirely lacking in the Curridabat forms.

In the Curridabat ware the scute ornamentation is not confined to the back of the more or less realistic animal representations, i. e., to the legs of the vases, but, as is illustrated in plates XVII and XVIII, becomes an important motive in the purely geometrical decoration of the bodies of the vessels. Pellets identical in shape with those of the alligator scutes are most frequently employed in the Curridabat ware as material for forming geometrical combinations — various simple patterns in low relief on the shoulder or cylindrical neck of the vessel. In a similar manner pieces of punctuated strings are usually applied in pairs for ornamenting the shoulder of globular vessels. From the observation of a large series of vessels, at hand, the derivation of the elements of the symbolic, geometrical designs from the scute feature is quite evident. The limited space of the present paper permits the reproduction of only a few typical examples. The collection contains a large number of similar forms, and many others showing intermediate links.

Of the pellets representing the scutes there are three main variants: (1) The plain pellet, in form circular, oval, or triangular, often placed edgewise (see pl. XVI, figs. 1, 2; pl. XVII, figs. 1, 2, 4, 6, 8; pl. XVIII, figs. 2, 7, 12; pl. XX, fig. 6); (2) the incised pellet, usually oval (see pl. XIX, figs. 1, 3; and pl. XX, fig. 5); finally (3) the



LEGS AND LEG FRAGMENTS OF TRIPOD ALLIGATOR VASES OF THE CURRIDABAT WARE

circular pellet, with a hole in the center or a ring-shaped incision (see pl. xvii, figs. 3, 7 ; pl. xix, fig. 2 ; pl. xx, figs. 1, 2). Indented ring-shaped marks are also employed to represent the eyes, as shown in several of the specimens illustrated.

When (as in pl. xx, fig. 5) the incised, oval pellets are placed rather close to one another in a single row, a natural step is taken toward the punctuated string, a variant serving the same purpose but produced with less labor and consequently frequently employed (see pl. xix, fig. 6 ; pl. xx, figs. 7, 9, 10).¹

The rows of pellets, or the punctuated string, is also very often supplanted by ridges, all of which may be serrated (as in pl. xviii, figs. 3, 14), or only the outer two may be serrated, the central being plain (as in pl. xviii, fig. 4), or the serrations may be entirely lacking and all the ridges left plain (as in figs. 5 and 11 of the same plate). Only through the presence of transitional forms may this strange form be traced back to the alligator. In pl. xviii, figs. 6, 10, 13, and pl. xx, fig. 4, merely a row of cross incisions or impressions indicate the rows of scutes. In the rather realistic representation shown in pl. xviii, fig. 1, the body is entirely devoid of scute marks.

Amongst the pottery of the stone-cist graves of the highlands and of the Atlantic coast there occurs a considerable number of tripod vases and bowls, varying in shape, but mostly very small, which are copiously embellished with ornaments in low relief. Undoubtedly the most characteristic of these ornaments consist of pieces of punctuated strings, usually occurring in pairs. This string ornamentation is used for filling empty spaces on the shoulders of the vessels ; it appears not only on vessels with legs in the shape of small lizards, yet which probably represent alligators, but also on vessels with other animal and even human features represented by the legs. This peculiar string ornamentation in most cases has its origin in the scute rows of the alligator's back. But it was after the Curridabat ware, with its rich and instructive series of alligator ornaments in all stages of development, had imparted its lesson of the high importance attached by the native artist to this special feature, that the origin and meaning of the string ornamentation of

¹ The last three vessels do not belong to the Curridabat ware, but to the typical stone-cist ware of the highlands.

the stone-cist ware became apparent. Plate xx, figs. 7, 9, and 10, exhibit specimens from stone-cist graves on Irazu, and in *Archæological Researches in Costa Rica* there are many more examples.

A large group of the Curridabat vessels shows, instead of the low-relief patterns of attached scutes, simply incised designs, usually made up of small circular impressions or punctures which take the place of the ring-shaped pellets (see pl. xvii, fig. 5 ; pl. xx, figs. 3, 8).

A peculiarity of the Curridabat alligator form is the abnormal prolongation of the usually scute- or spike-covered portion of the upper jaw, which often extends to the double length of the lower jaw and then generally is slightly bent downward. In many specimens, as in plate xviii, figs. 3, 4, 5, this extended upper jaw finally is the only part of the head represented. A rather unique feature of this prolonged thin jaw is the heavy string of clay which, from below, serves to strengthen and keep it in position. Plate xviii, figs. 8, 9, show the under or rear sides of figs. 3 and 4.

The alligator form from the Pacific coast — the handle of a vase cover illustrated in plate xix, fig. 5 — shows a rather realistic representation of the reptile with the large front teeth rendered and with the back and tail covered with three rows of scutes.

A small number of the incised geometrical designs of the Curridabat ware probably had their origin in another animal motive, namely, the serpent, which here is represented with scale marks, sometimes detached from the body. But as serpent vases are very rare, being outnumbered a hundred to one by the alligator vessels, the geometrical patterns derived from the former also undoubtedly are very few.

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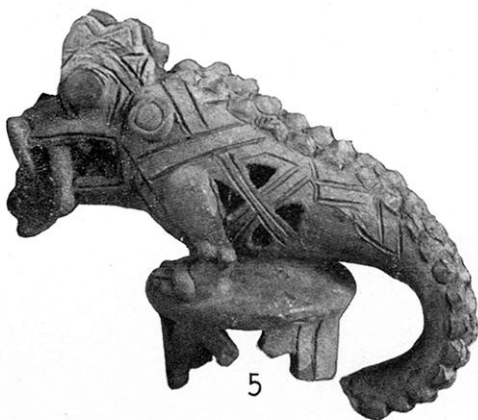
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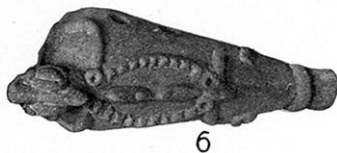
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1-4 AND 6, LEGS OF TRIPOD ALLIGATOR VASES; 5, TOP OF A COVER. FROM THE PACIFIC COAST OF COSTA RICA



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SMALLER VESSELS OF THE CURRIDABAT ALLIGATOR WARE FOUND IN THE GRAVES